

REMARKS

The Office Action mailed August 21, 2007 has been carefully considered. Within the Office Action Claims 46-50, 52-55 and 85-113 have been rejected. Applicant has amended Claims 104 and 113. Reconsideration is respectfully requested.

The 35 U.S.C. § 112, First Paragraph Rejection

Claims 46-50, 52-55, 85-88 and 94-98 were rejected under 35 U.S.C. § 112, first paragraph, as containing subject matter which was allegedly not described in the specification in such a way as to enable one of ordinary skill in the art to practice the invention. This rejection is respectfully traversed.

Specifically, it is stated that there is no support in Applicant's specification for the limitation "an actuator sensor coupled to the actuator and configured to measure the amount of rotation of the eccentric mass when the actuator is activated, wherein the actuator controls the amount of rotation of eccentric mass in response to the measured amount of rotation to output an inertial haptic effect pulse to the housing." The Applicants respectfully disagree.

Applicant's specification expressly states,

The embodiment 200 can produce strong forces to the user if the mass 212 is rotated quickly. In some embodiments, forces output to the user can be dependent on the initial state of the motor/mass. For example, if the eccentric mass were initially positioned at the bottom of its rotational range, a "pop" sensation (e.g. one or a small number of quick mass rotations) would feel different than if the mass were initially positioned at the top of its range. Rotating mass control firmware and a sensor that reads mass rotational position may be used to improve the eccentric mass control and make particular force sensations always feel the same.

(Specification, Page 14, Lines 27-32).

In addition, the Specification states that a harmonic drive, in which the mass is driven in both directions about its rotational axis, higher-fidelity force effects may, in general, be obtained. Further, the Specification states that firmware or control software can be used to translate low frequency periodic drive signals into short duration pulses that start the mass moving from a known position. (Specification, Page 14, Lines 27-32).

Further, the Specification discloses,

Some embodiments of mouse 270 may have inconsistent force output for reasons similar to other eccentric rotating mass embodiments: the initial conditions (position and velocity) of the eccentric mass may influence how the actuator operates in response to different drive input signals. As a result, the force effects may not feel repeatable or consistent and may be undesirable. For example, a command signal that commands a pulse effect when the cursor crosses over an icon may cause the force effect to be output too late, after the icon was crossed by the cursor, due to the time it takes for the mass to be accelerated against a stop. In some cases, rebound forces may counteract the next pulse and obscure subsequent effects. **Such disadvantages may be solved in some embodiments by providing controlling methods and/or a sensor that detects mass rotational position that maintain the mass in a known position so that force sensations are repeatable and consistent.**

(Specification, Page 20, Lines 10-21) (emphasis added). Therefore, as shown above, the specification describes the claimed subject matter to reasonably convey to one skilled that the Applicants possessed the claimed subject matter. For at least these reasons, withdrawal of the rejection is respectfully requested.

Claims 47-50, 52-55 and 85-88 are dependent on Independent Claim 46; Claims 95-98 are dependent on Independent Claim 94. For at least the reasons stated above, Claims 46 and 94 are allowable. Accordingly, Claims 47-50, 52-55 and 85-88 are allowable for being dependent on allowable base claims.

Rejection under U.S.C. § 103

Claims 104, 107 and 113 were rejected under 35 U.S.C. § 103(a) as being allegedly unpatentable over JP Patent Publication No. 09-026850 by Ozaka et al. in view of U.S. Patent No. 5,828,364 to Siddiqui.

In determining obviousness four factual inquiries must be looked into in regards to determining obviousness. These are determining the scope and content of the prior art; ascertaining the differences between the prior art and the claims in issue; resolving the level of ordinary skill in the pertinent art; and evaluating evidence of secondary consideration. Graham v. John Deere, 383 U.S. 1 (1966); KSR Int'l Co. v. Teleflex, Inc., No 04-1350 (U.S. Apr. 30, 2007) (“ Often, it will be necessary . . . to look into related teachings of multiple patents; the effects of demands known to the design community or present in the marketplace; and the background knowledge possessed by a person having ordinary skill in the art, all in order to determine whether there was an **apparent reason** to combine the known elements in the fashion claimed by the patent at issue. To facilitate review, this analysis **should be made explicit.**”) (emphasis added).

In determining the differences between the prior art and the claims, the question under 35 U.S.C. 103 is not whether the differences themselves would have been obvious, but whether the claimed invention as a whole would have been obvious. Stratoflex, Inc. v. Aeroquip Corp., 713 F.2d 1530 (Fed. Cir. 1983). Thus, when considering the whole prior art reference its entirety, portions that would lead away from the claimed invention must be considered. W.L. Gore & Associates, Inc. v. Garlock, Inc., 721 F.2d 1540 (Fed. Cir. 1983), See M.P.E.P. 2141.02. Thus, it is improper to combine references where the references teach away from their combination. In re Grasselli, 713 F.2d 731 (Fed. Cir. 1983).

Claims 104 and 113 both recite, among other things, a housing having a moveable portion and a base portion, wherein the moveable portion is moveable with respect to the base portion while coupled to the base portion. Siddiqui only discloses that the computer mouse has a removable cover portion. However, there is absolutely no disclosure in Siddiqui that the moveable portion is moveable with respect to the base portion while coupled to the base portion. In fact, Siddiqui teaches quite the opposite that the cover of the computer mouse is either removeable or not (i.e. screws attachment means in Figure 5). Thus, the combination of Ozaka and Siddiqui does not teach or suggest each and every element/limitation in Claims 104 and 113. For at least these reasons, Claims 104 and 113 are allowable over Ozaka and Siddiqui. Claims 106 and 107 are allowable for being dependent on allowable base claim 104.


Conclusion

It is believed that this reply places the above-identified patent application into condition for allowance. Early favorable consideration of this reply is earnestly solicited. If, in the opinion of the Examiner, an interview would expedite the prosecution of this application, the Examiner is invited to call the undersigned attorney at the number indicated below. Applicant respectfully requests that a timely Notice of Allowance be issued in this case. Please charge any additional required fee or credit any overpayment not otherwise paid or credited to our deposit account No. 50-1698.

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Thelen Reid Brown Raysman & Steiner LLP
P.O. Box 640640
San Jose, CA 95164-0640
Tel. (408) 292-5800
Fax. (408) 287-8040

Respectfully submitted,


Suvashis Bhattacharya (# 46,554)